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UNCLAS SECTION 01 OF 02 MAPUTO 000360

STATE FOR AF/S, AF/EPS - JHAEN, OES/SAT - FECHAVARRIA STATE PLEASE PASS TO USAID - GWEYNAND

COMMERCE FOR AHILLIGAS ENERGY FOR FHODSOLL

E.O. 12958: N/A

TAGS: ECON ENRG EFIN SENV MZ SUBJECT: MOZAMBIQUE: GEOTHERMAL MARKET DEVELOPMENT

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11. Per reftel, Maputo provides the following information:

Support to Develop Geothermal Energy in East Africa

- 12. Mozambique is rich in hydropower and natural gas resources and is exploiting the capacity of both sources for energy production. The GRM is supportive of international aid to geothermal infrastructure development in the Rift Valley, but advises that little research has been done in this field in Mozambique. Additionally, the GRM informs Post there is no funding to explore geothermal energy development in Mozambique, as all GRM focus is on developing alreadydiscovered energy resources such as hydroelectric power, natural gas, steam coal, and solar power. Post is aware of projects in the energy sector and believes Mozambique must first develop production in these areas in which it is well endowed and has attracted foreign investment, before pursuing geothermal energy options.
- 13. Mozambique has immense hydropower and natural gas resources that currently supply the national market and a number of consumers in South Africa. The Cahora Bassa Dam, Africa's second largest in terms of hydropower production, supplies electricity to South Africa (which is then sold back to Southern Mozambique at a higher price) and to the northern and central regions of Mozambique. The South African Chemical and Fuel Company, SASOL, has embarked on a mega-project in the province of Inhambane to extract natural gas from Mozambique and export it to South Africa. The first exportation of natural gas under the SASOL project occurred in February 2004. Aside from these two sources of energy, Mozambique has steam coal deposits located in the Tete Province (yet to be explored for energy production), the beginning of solar panel installation in certain areas, and mini-hydro projects. If/when the GRM selects a firm to reconstruct the Sena Railway line (decision pending), linking Tete's coalmines to the coast, exploration of a steam coal project will move forward. There are already several foreign investors interested in exploring this opportunity. The GRM is also looking into further hydropower projects on the Zambezi River such as Cahora Bossa North (which would install generators along the north side of the Cahora Bossa Dam, roughly doubling current capacity) and the Mepanda Uncua Dam (1300 MW), downstream from the Cahora Bassa. A feasibility study has been completed on the dam's hydropower potential, but the GRM is still seeking potential investors.
- 14. In a meeting at the National Directorate of Energy, Ministry of Mining and Energy Resources, National Director Pascoal Bacela described the GRM's energy policy as "the willingness to explore every energy resource" available to Mozambique. The Ministry's first priority is to increase the population's access to energy. The Ministry is also concerned with finding clean and efficient methods of energy production that do not harm the environment. On geothermal energy infrastructure development Bacela said, "Mozambique would need significant financing" to move forward in this area of exploration. "This (exploration) opens a good possibility for Mozambique" and the GRM "would be willing to cooperate in development of the African Rift Valley Geothermal Development Facility (ARGEo) if this project brings development to Mozambique and its resources.

Barriers to Geothermal Development ._____

15. In Mozambique, only 7% of the population has access to electricity. Of this 7%, 80% live in urban areas. Public investment (GRM and donor-funded) totals \$200 million/year (on average) for the construction of transmission lines to expand the national electricity network. The GRM, through the World Bank Energy Reform and Access Project (ERAP), is working to increase access by encouraging private sector involvement in the electricity sector. The ERAP project will include components of technical assistance, electricity sector restructuring (i.e. privatization of the national power company, EDM), establishing an independent energy

regulator, and grid expansion through capital subsidies. The effective date of the project is March 31, 2004.

- 16. Hidroelectrica Cahora Bassa, an 82% Portuguese-owned and 18% Mozambican owned company, controls Cahora Bassa hydropower production and sale to Mozambique, South Africa, and Zimbabwe. Although this company is the second largest revenue-producing firm in Mozambique (according to KPMG's annual "Top 100 Companies in Mozambique" Study, 2003), it operates with an extravagant amount of debt. There are several reasons for this, some dating back to transmission line damage during the Civil War, unusually low tariffs paid by South Africa (Eskom) for hydropower, and Zimbabwe's recent inability to pay its electric bills. Mozambique produces more electricity than it can use at Cahora Bassa. The problem lies in the fact that the national market for electricity is severely limited due to the lack of transportation infrastructure and the pure inability of a majority of Mozambicans to pay for a "luxury" item such as power.
- \P 7. Energy sector aside, there are some basic obstacles for foreign investment in Mozambique. These obstacles include: length of time for business registration, the tax administration system, the labor law, property rights, operation of customs, bureaucracy, and corruption. The business registration process in Mozambique operates very inefficiently and is highly time-consuming, causing aggravation on the behalf of many foreign investors. The World Bank recently reported that, on average, 153 days is the average length of time it takes for a company to achieve registration in Mozambique. The applicant company must complete 15 procedures (OECD average is 7) in this process. Bureaucracy is high and it is common to come across corrupt officials, whether during a labor inspection or the customs clearance process. The Ministry of Finance has not yet formulated an efficient system for repaying VAT promised to exempted investors and donors. Experience demonstrates that significant return on this VAT often only happens with diplomatic intervention at the highest levels. Many companies have operated with restricted cash flows due to the amount of time it takes to receive repayments. The labor law is in the process of revision, but is regarded as highly pro-worker and investment-unfriendly. There is a severe paucity of skilled labor in Mozambique and the law makes it very difficult and costly to employ foreign labor. Property rights are weakly protected in Mozambique and the judiciary is largely corrupt. Customs operates inefficiently, and products spend a significant amount of time stationary at port. With cognizance of the barriers, the GRM repeats the theme of needing to attract foreign investment for the country to develop and grow. Many issues are currently being discussed within joint GRM, private sector, and donor circles to lessen the investment-negative impact of these barriers.
- 18. Mega-projects originating in Mozambique, such as the MOZAL aluminum smelter and the SASOL natural gas pipeline, operate in industrial-free zones. The GRM has been committed to working with these projects to satisfy investors and create a smoothly operating business climate. These firms enjoy various tax incentives and account for a majority of the country's revenue production and import/export statistics.

US Mission Assistance

 $\underline{\mbox{\bf 19}}.$ USAID is involved in the energy sector through support to the National Energy Council (CNELEC). The goal of the support is to create an independent regulatory body that will oversee the electricity sector. Support includes institutional capacity building, training, and technical assistance. The GRM is undertaking the steps necessary to privatize EDM through the World Bank ERAP project. An independent regulator is both a necessary part of system privatization, and a condition precedent for the disbursement of the second tranche of funds under ERAP. USAID's current priorities in the energy sector do not include geothermal exploration. LA LIME